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DATE MAILED: 12/09/2010

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 12/09/2010

Joseph K. Hemby, Jr. Naval Medical Research Center Office of Counsel 503 Robert Grant Avenue Silver Spring, MD 20910-7500 EXAMINER
GAMBEL, PHILLIP
ART UNIT
PAPER NUMBER

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 09/027,205
 02/20/1998
 CARL H. JUNE
 36/19-126
 28/25

TITLE OF INVENTION: METHODS FOR DOWNREGULATING CCR5 IN T CELLS WITH ANTI-CD3 ANTIBODIES AND ANTI-CD28 ANTIBODIES

 APPLN TYPE
 SMALL ENTITY
 ISSUE FEE DUE
 PUBLICATION FEE DUE
 PREV. PAID ISSUE FEE
 TOTAL FEESS DUE
 DATE DUE

 nonprovisional
 NO
 \$1510
 \$0
 \$0
 \$1510
 02/09/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

maintenance fee notificati	ions.		UE FEE and PUBLICATI orders and notification of r a) specifying a new corres				
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Joseph K. Heml Naval Medical R 503 Robert Grant	by, Jr. esearch Center Off Avenue		I he Stat addi tran	Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUT FEE address above, or being facsimile transmitted to the USF10 (571) 273-2885, on the date indicated below.			
Silver Spring, MI	D 20910-7500						(Depositor's name)
			_				(Signature)
							(Date)
APPLICATION NO.	FILING DATE	FIRST NAMED INVE		OR ATTORNE		Y DOCKET NO.	CONFIRMATION NO.
09/027,205 TITLE OF INVENTION ANTIBODIES	02/20/1998 N: METHODS FOR	DOWNREGULATING	CARL H. JUNE CCR5 IN T CELLS V	JTH ANTI-CD3		119-126 DDIES AND AN	2825 TI-CD28
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUI	FEE T	OTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	80	\$0		\$1510	03/09/2011
EXAMI	NER	ART UNIT	CLASS-SUBCLASS				
GAMBEL,	PHILLIP	1644	424-148100				
"Fee Address" indic PTO/SB/47; Rev 03-02 Number is required. 3. ASSIGNEE NAME AN	ondence address (or Cha /122) attached. cation (or "Fee Address 2 or more recent) attach ND RESIDENCE DATA sess an assignee is ident in 37 CFR 3.11. Comp	nge of Correspondence Indication form and Use of a Customer TO BE PRINTED ON	2. For printing on the p (1) the names of up to or agents OR, alternative (2) the name of a single registered attorney or a 2 2 3 3 3 3 4 5 5 5 6 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	3 registered paten rely, e firm (having as a gent) and the nam meys or agents. If printed. ee) utent. If an assign assignment.	member a es of up to no name is ee is identi	23ified below, the d	ocument has been filed for
Please check the appropria	ate assignee category or	categories (will not be p	rinted on the patent):	Individual 🚨 Co	orporation c	or other private gro	oup entity 🗖 Government
4a. The following fee(s) a Issue Fee Publication Fee (No	o small entity discount p	ib. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) A check is enclosed. Payment by redit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).					
	SMALL ENTITY state	is. See 37 CFR 1.27.	☐ b. Applicant is no lon				
interest as shown by the re	ecords of the United Sta	tes Patent and Trademar	ed from anyone other than t k Office.	ie applicant, a regi	siereu auor	ney or agent, or ti	ie assignee or outer party it
Authorized Signature _				Date			
Typed or printed name				Registration N			
This collection of informa an application. Confidenti submitting the completed this form and/or suggestic Box 1450, Alexandria, Vi Alexandria, Virginia 2231	tion is required by 37 C iality is governed by 35 application form to the ons for reducing this bur rginia 22313-1450. DC 3-1450.	FR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will var rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est y depending upon the indiv the Chief Information Office COMPLETED FORMS TO	etain a benefit by t imated to take 12 r idual case. Any co r, U.S. Patent and) THIS ADDRESS	he public w ninutes to o mments on Trademark 5. SEND TO	which is to file (and complete, including the amount of tit Office, U.S. Depo O: Commissioner	by the USPTO to process g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/027,205	02/20/1998	CARL H. JUNE	36119-126	2825	
75	90 12/09/2010	EXAMINER			
Joseph K. Hemby	, Jr.	GAMBEL, PHILLIP			
	earch Center Office of	ART UNIT	PAPER NUMBER		
503 Robert Grant A Silver Spring, MD		1644			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)			
09/027,205	JUNE ET AL.			
Examiner	Art Unit			
Phillip Gambel	1644			

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative

- of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.
- This communication is responsive to 07/30/2010, 08/03/2010.
- The allowed claim(s) is/are 96,97 and 99-107.
- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) ☐ Some* c) ☐ None of the: a) \square All
 - Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. ___
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received:

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date (b) I including changes required by the attached Examiner's Amendment / Comment or in the Office action of
 - Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of

each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date
- 4. ☐ Examiner's Comment Regarding Requirement for Deposit
- of Biological Material

Paper No./Mail Date 7. X Examiner's Amendment/Comment

8. X Examiner's Statement of Reasons for Allowance

5. Notice of Informal Patent Application

Interview Summary (PTO-413).

9. ☐ Other

/Phillip Gambel/ Primary Examiner, Art Unit 1644

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Art Unit: 1644

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under Ex Parte Quayle, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on 08/03/2010 has been entered.

2. Claims 96-97 and 99-107 are pending in the instant application

Claims 1-95 and 98 have been canceled previously.

EXAMINER'S AMENDMENT

- 3. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.
- 4. The title has been replaced with the following:
- -- METHODS OF DOWNREGULATING CCR5 IN T CELLS WITH ANTI-CD3
 ANTIBODIES AND ANTI-CD28 ANTIBODIES --

REASONS FOR ALLOWANCE

5. The following is an Examiner's Statement of Reasons for Allowance:

Upon reconsideration of and in agreement with applicant's arguments, filed 07/30/2010, that Kwon was not prior art against this invention in that the relevant teachings of Kwon (i.e. "ligation of T cells with anti-CD3 antibodies and anti-CD28 antibodies induce an HIV resistant state") was not disclosed in USSN 08/409,851 filed 1995, but was first presented in USSN 09/007,097, filed 01/14/1998;

the previous prior art rejection under 35 U.S.C. § 103(a) as being unpatentable over June et al. (WO 95/33823) in view of Chang et al. (U.S. Patent No. 6,129,916), Levine et al. (International Immunology 7: 891-904, 1995), Kwon et al. (U.S. Patent No. 5,569,997) and Allaway et al. (US 2004/0086528 A1) has been withdrawn.

The prior neither suggests not teaches "ligation of T cells with anti-CD3 antibodies and anti-CD28 antibodies induce an HIV resistant state" and measuring the level of CCR5 RNA or protein expression in T cells contacted with anti-CD3 antibodies and anti-CD28 antibodies encompassed by the claimed methods.

Accordingly the instant claims are deemed allowable.

Application/Control Number: 09/027,205

Art Unit: 1644

6. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Gambel whose telephone number is (571) 272-0844. The examiner can normally be reached Monday through Thursday from 7:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735.

The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-917 (toll-free).

/ Phillip Gambel / Primary Examiner Art Unit 1644 Technology Center 1600 Art Unit 1644 December 2, 2010